Message

From: Barron, Alex (DEQ) [Alex.Barron@deq.virginia.gov]

Sent: 7/20/2016 11:17:58 AM

To: Atkinson, Cheryl [Atkinson.Cheryl@epa.gov]; Whitehurst, David (DEQ) [David.Whitehurst@deq.virginia.gov]

Subject: RE: EPA's 2015 Human Health Recommended Criteria

Hi Cheryl ©

Thanks so much. Yes, I've had these and have referred to them for years and they have helped inform and support the adoption of our current human health criteria. But now we've got the brand new 2015 criteria which we are working to adopt.

Time marches on!

I hope you will be able to be on the phone today (10:00AM-3:00PM?) for our final meeting of our Regulatory Advisory Panel, where we will discuss these 2015 updated criteria, along with the Recreation Criteria, Cadmium, and Ammonia.

Alex

From: Atkinson, Cheryl [mailto:Atkinson.Cheryl@epa.gov]

Sent: Tuesday, July 19, 2016 4:05 PM

To: Barron, Alex (DEQ); Whitehurst, David (DEQ)

Subject: FW: EPA's 2015 Human Health Recommended Criteria

Hi David and Alex, thought you might find this helpful.

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From: Hakowski, Denise

Sent: Tuesday, July 19, 2016 1:31 PM

To: Matthew Stover -MDE- <matthew.stover@maryland.gov>; Tim Fox -MDE- <tim.fox@maryland.gov>

Cc: Barath, Mark <Barath.Mark@epa.gov>; MacKnight, Evelyn <MacKnight, Evelyn@epa.gov>; Atkinson, Cheryl

Atkinson.Cheryl@epa.gov

Subject: EPA's 2015 Human Health Recommended Criteria

Hi Matt and Tim,

Per our discussion yesterday, I'm sending you several things to help you in your review of the 2015 human health recommendations. First, the link to the chemical specific inputs for EPA's 2015 human health criteria recommendations:

https://www.epa.gov/sites/production/files/2016-03/documents/summary_of_inputs_final_revised_3.24.16.pdf

It's not obvious, so I will note, EPA weighted the trophic levels by estimated fish consumption rate at each trophic level. We broke out the 22g/day national average Fish Consumption Rate (FCR) into the 3 trophic levels, so of that 22g:

- 7.6 g/d (0.0076 kg/d) was attributed to consumption of fish at TL2
- TL3 = 8.6 g/d (0.0086 kg/d)
- TL4 = 5.1 g/d (0.0051 kg/d)

then we multiplied each of those broken out FCRs by the corresponding BAF for that TL for that pollutant, and then those took the sum of those three numbers, and then once you do that FCR*BAF weighting, that takes care of both the FCR and the BAF components of the HHC equation (i.e., the divisor).

To illustrate I attached a spreadsheet that calculates Aldrin (@ 10-6, so adjust for your purposes).

And, for comparison purposes, I'm sending you 2 documents from 2002. When we published the human health methodology in 2000, we published the new criteria recommendations, and a matrix with the specific inputs and compared it to the previous recommendations inputs. You can use it to compare to the new table to help understand why the new recommendations differ from the old. There were 2 matrixes actually, as EPA held back 15 criteria for a reason I cannot remember, and those we updated in December 2003, and both are attached.

Hopefully this will get you started. Let us know if you need more.

D.